

REMARKS

I. Introduction

Claims 9-16 are currently pending and stand rejected. Claim 9 has been amended. In view of the foregoing amendment and following remarks, it is respectfully submitted that pending claims 9-16 are allowable, and reconsideration is respectfully requested.

II. Rejection of Claims 9-10, 13 and 15-16 under 35 U.S.C. 103(a)

Claims 9-10, 13 and 15-16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,724,815 ("Jepsen") in view of U.S. Patent No. 6,657,949 ("Jones"). Applicant respectfully submits that these rejections should be withdrawn, for at least the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. See KSR Int'l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id., at 1396. To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Amended independent claim 9 recites, in relevant parts, "transmitting a data signal between a transmitter and a receiver as a data stream of data bursts in either a first transmission

mode or a second transmission mode; . . . wherein a selection between the first transmission mode and the second transmission mode is made, said selection being dependent on whether interference elimination is performed at the receiver or at the transmitter.” As described in the Applicant’s specification, if the receiver is performing joint detection, the reference signal is transmitted (“first transmission mode”), and if the transmitter is performing joint pre-equalization, the reference signal is omitted and data redundancy is provided in place of the reference signal (“second transmission mode”). In contrast, there is clearly no suggestion in either Jepsen or Jones to change the format of the data burst dependent on whether interference elimination is performed at the receiver or the transmitter. Accordingly, the overall teaching of Jepsen and Jones simply cannot render amended claim 9 and its dependent claims 10, 13 and 15-16 obvious.

Independent of the above, to the extent the Examiner contends that it would have been obvious to “transmit redundant data instead of additional data in Jepsen’s system, as suggested by Jones, to increase the probability of accurate reception of data,” this contention is clearly contradicted by the actual teaching of Jepsen. As previously explained in the Appeal Brief mailed on June 27, 2007, the object of Jepsen is to increase the amount of data which is transmitted in each burst by replacing the training sequence with user data. (See, e.g., col. 1, l. 64-67; col. 3, l. 50-51; and col. 8, l. 11-12). Jepsen indicates that this is possible in the GSM transmission system because the “environment is characterized by the propagation conditions changing slowly with respect to the GSM framelength” (col. 8, lines 14-15), thereby allowing the training sequences from adjacent bursts to be used to provide the channel estimation measurement. Since the very object of Jepsen is to enable transmission of additional data in each burst, the modification asserted by the Examiner (i.e., not transmit additional data) simply would not be reasonable to one of ordinary skill in the art considering the teaching of Jepsen. In this regard, Applicant notes that in order to support an obviousness conclusion, the asserted modification cannot change the principle of operation of the prior art invention being modified. MPEP 2143.01 VI (citing In re Ratti, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959)). As explained above, the modification asserted by the Examiner is not only contradicted by the teachings of Jepsen, but also directly changes the core principle of operation of Jepsen, thereby directly negating the obviousness conclusion. With respect to the Examiner’s asserted motivation for making the modification (i.e., “to increase the probability of accurate reception of data”), Applicant notes that if one of ordinary skill in the art were concerned about the accurate reception of data, it would be far more logical to maintain the training sequence since

this serves to improve the reception ability of the receiver by providing an accurate estimation of the transmission channel. Put another way, if the reception of the data was so bad that additional redundancy had to be provided in order to ensure accurate reception, there would be no reason to consider not transmitting the training sequence in the data burst, since only when the reception conditions are sufficiently good can the training sequence be omitted.

For at least the foregoing reasons, Applicant submits that the overall teachings of Jepsen and Jones cannot render claims 9-10, 13 and 1-16 obvious, and withdrawal of the obviousness rejection of claims 9-10, 13 and 15-16 is requested.

III. Rejection of Claims 11-12 under 35 U.S.C. 103(a)

Claims 11-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,724,815 ("Jepsen") and U.S. Patent No. 6,657,949 ("Jones"), and further in view of U.S. Patent No. 5,113,413 ("Brown"). Applicant respectfully submits that this rejection should be withdrawn, for at least the following reasons.

Claims 11-12 ultimately depend on independent claim 9. As explained above in connection with parent claim 9, the overall teachings of Jepsen and Jones simply do not render claim 9 obvious. In addition, the teachings of Brown fail to remedy the deficiencies of Jepsen and Jones as applied against claim 9. Therefore, the overall teachings of Jepsen, Jones and Brown do not render claim 9 and its dependent claims 11 and 12 obvious.

In view of the above, withdrawal of the obviousness rejections of claims 11-12 is respectfully requested.

IV. Rejection of Claim 14 under 35 U.S.C. 103(a)

Claim 14 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,724,815 ("Jepsen") and U.S. Patent No. 6,657,949 ("Jones"), and further in view of U.S. Patent No. 6,760,589 ("Hobbis"). Applicant respectfully submits that this rejection should be withdrawn, for at least the following reasons.

Claim 14 depends on independent claim 9. As explained above in connection with parent claim 9, the overall teachings of Jepsen and Jones simply do not render claim 9 obvious. In addition, the teachings of Hobbis fail to remedy the deficiencies of Jepsen and Jones as

applied against claim 9. Therefore, the overall teachings of Jepsen, Jones and Hobbis do not render claim 9 and its dependent claim 14 obvious.

In view of the above, withdrawal of the obviousness rejections of claim 14 is respectfully requested.

V. Conclusion

It is therefore respectfully submitted that all of the presently pending claims 9-16 are in allowable condition. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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